



# Recent Insights in the Paracrine Modulation of Cardiomyocyte Contractility by Cardiac Endothelial Cells

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Résumé en anglais	<p>The cardiac endothelium is formed by a continuous monolayer of cells that line the cavity of the heart (endocardial endothelial cells (EECs)) and the luminal surface of the myocardial blood vessels (intramyocardial capillary endothelial cells (IMCEs)). EECs and IMCEs can exercise substantial control over the contractility of cardiomyocytes by releasing various factors such as nitric oxide (NO) via a constitutive endothelial NO-synthase (eNOS), endothelin-1, prostaglandins, angiotensin II, peptide growth factors, and neuregulin-1. The purpose of the present paper is actually to shortly review recent new information concerning cardiomyocytes as effectors of endothelium paracrine signaling, focusing particularly on contractile function. The modes of action and the regulatory paracrine role of the main mediators delivered by cardiac endothelial cells upon cardiac contractility identified in cardiomyocytes are complex and not fully described. Thus, careful evaluation of new therapeutic approaches is required targeting important physiological signaling pathways, some of which have been until recently considered as deleterious, like reactive oxygen species. Future works in the field of cardiac endothelial cells and cardiac function will help to better understand the implication of these mediators in cardiac physiopathology.</p>
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